

Notice of Allowability

Application No.

09/773,853

Examiner

Thomas H. Stevens

Applicant(s)

SAN ET AL.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 03/22/2006.
2. ☒ The allowed claim(s) is/are 1-16, 19-36 and 41-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 9/5/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. Claims 1-44 were previously examined.
2. Claims 17, 18, 37-40 are now cancelled.
3. Claims 1-15 and 41-44 were acknowledged as allowable subject matter.
4. Claims 16, 19-36 were examined.

Allowable Subject Matter

5. Claims 1-16, 19-36 and 41-44 are allowed.

Examiner's Amendment

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Godfrey Kwan (Registration Number 46,850), on 5/2/06. The amendments are as follows:

- Claim 31, line 6, the word "the" was replaced by the word -- a -- .
 - Specification, pg. 20, line 22, the phrase " 804 through 814" was replaced by this set of elements -- 806, 808, 810, 812 and 814 -- .
7. The following is an examiner's statement of reasons for allowance:

While Eminoglu et al., "A CAD Environment for Digital Filters Using A VerilogHDL Based Functional Bit-Serial Compiler" teaches (claim 1) a filter compiler, comprising: a

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filter coefficient generator arranged to provide a first set; corresponding to a filter spectral response; a filter spectral response simulator coupled to the filter coefficient generator for providing an expected filter spectral response based in part upon the first set of filter coefficients; Biacher et al., "Learning About Digital Processing Using Spreadsheets" teaches (claim 1) filter coefficients; US Patent 5,117,349 (claim 16) teaches a method of compiling a filter; US Patent (claim 16) 5,546,477 teaches filter coefficients, spectral response and implementation cost; Baicher et al., ("Learning About Digital Signal Processing Using Spreadsheets and Simulation Software" 1996) and "FIR Compiler MegaCore Function" teach FIR compilers (claim 41), none of the references taken, either alone or in combination teach or disclose:

(claim 1) "a filter resource estimator coupled to the filter spectral response simulator for estimating an implementation cost of a filter, wherein a cost analysis is performed substantially in parallel with a performance analysis; and a filter compiler unit coupled to the filter resource estimator arranged to compile a filter implementation output file"

(claim 16) "providing a first set ...providing an expected filter spectral response based in part upon the first set of filter coefficients; comparing the desired filter spectral response to the expected filter spectral response; estimating an implementation cost of the desired filter; compiling a filter implementation output file; wherein when the expected filter spectral response is substantially the same as the selected filter spectral

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response, then the first set of filter coefficients is a second set... and wherein estimating the implementation cost of the filter is based upon the second set"

(claim 41) "applying a first clock rule when an input data width is less than or equal to an interpolation factor; and applying a second clock rule when an input data width is greater than the interpolation factor".

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record. Furthermore, the amended claims are novel in view of the prior art (e.g., Baicher) set forth within the previous office action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Correspondence Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

May 2, 2006

TS


Paul D. Rodriguez
Primary Examiner
Art Unit 2123 (23)
5/15/06